

7/14/2010 STN International  
 Spelling, Abbreviations, Plurals: On

```

FILE 'INSPEC' ENTERED AT 08:05:37 ON 14 JUL 2010
L1      784 ((CO SS(S) FE SS(S) B SS))/CHI (L) 3/ELC
L2      63512 "MAGNETORESISTIVE DEVICES"+ALL/CT
L3      124211 MAGNETORESISTANCE+ALL/CT
L4      60228 "MRAM DEVICES"+ALL/CT
L5      261 L1 AND L2
L6      296 L1 AND L3
L7      230 L1 AND L4
L8      380 L5 OR L6 OR L7
L9      106 L8 AND AMORPH?
L10     28 L9 AND PY<2004
L11     28 DUP REM L10 (0 DUPLICATES REMOVED)
L12     0 CO90FE2080B20
L13     0 CO90(L)FE20(L)B20
L14     40451 MRAM OR MAGNETORESIST?
L15     64494 MAGNETO RESIST? OR ((MAGNETIC OR MAGNETO OR MR) (2A) (MEMOR?
      OR THIN FILM OR DEVICE OR HEAD OR RANDOM ACCESS OR RAM))
L16     27468 MAGNETORESTRICT? OR MAGNETOELECTR? OR ELECTRIC SENSING
L17     7796 B3120J/CC
L18     124462 L14 OR L15 OR L16 OR L17
L19     406 L1 AND L18
L20     87 L19 NOT L8
L21     33 L20 AND AMORPH?
L22     22 L21 AND PY<2004
L23     22 DUP REM L22 (0 DUPLICATES REMOVED)
L24     1428 (COBALT OR CO) (3A) (IRON OR FE) (3A) (BORON OR B)
L25     179 L24 AND (L18 OR L2 OR L3 OR L4)
L26     134 L25 NOT (L8 OR L19)
L27     102 L26 AND PY<2004
L28     75 L27 AND AMORPH?
L29     44350 (IMPROV? OR INCREAS? OR ENHANC? OR BOOST? OR GAIN OR MAXIMIZ?
      OR MAXIMIS?) (3A) (READ OR RESIST? OR MAGNETORESIST?)
L30     3 L28 AND L29
L31     17 L27 AND AMORPHOUS ALLOY
L32     15 L31 NOT L30

```

7/13/2010 STN International  
 Spelling, Abbreviations, Plurals: On

FILE 'HCAPLUS' ENTERED AT 15:52:13 ON 13 JUL 2010

L1 0 10523281/APPS  
 L2 0 20060125034/APPS  
 L3 205 CO90FE10  
 L4 12 L3 AND (B20 OR BORON)  
 L5 2 L4 AND PY<2004

FILE 'REGISTRY' ENTERED AT 15:55:07 ON 13 JUL 2010

L6 1 7440-48-4  
 L7 1 7439-89-6  
 L8 1 7440-42-8

FILE 'HCAPLUS' ENTERED AT 15:55:42 ON 13 JUL 2010

L9 7104 L6 AND L7 AND L8  
 L10 49189 (MRAM OR "MAGNETIC MEMORY DEVICES" (L) "MRAM (MAGNETIC RANDOM  
 ACCESS)") OR MAGNETORESIST? OR MAGNETO RESIST?  
 L11 45127 (MAGNETIC OR MAGNETO OR MR) (2A) (MEMOR? OR THIN FILM OR  
 DEVICE OR HEAD OR RANDOM ACCESS OR RAM) OR MAGNETORESTRICT?  
 OR MAGNETOELECTR? OR ELECTRIC SENSING  
 L12 31 L9 AND L10  
 L13 60 L9 AND L11  
 L14 69 L12 OR L13  
 L15 21 L14 AND PY<2004  
 L16 21 DUP REM L15 (0 DUPLICATES REMOVED)  
 L17 21 SEA L16  
 L18 21 L17 NOT L5  
 L19 21884 CO(L)FE(L)B  
 L20 178 L19 AND L10  
 L21 399 L19 AND L11  
 L22 505 L20 OR L21  
 L23 4 L22 AND (PERCENT? OR RATIO OR PCT)  
 L24 4 L23 NOT (L5 OR L12 OR L13)

Wed, 14 Jul 2016, 7:40:05 AM EDT

## Search History For This Session

- (magnetoresist\* OR mr OR mram OR "magnetic memory") AND (cofeb OR cofe OR co90fe10), amorphous (171)
- (magnetoresist\* OR mr OR mram OR "magnetic memory") AND (cofeb OR cofe OR co90fe10) (2053)
- "Authors":(ohba OR hosomi OR bessho OR mizuguchi OR higo OR yamamoto OR some OR kano) AND (cofeb OR co90fe10) (6)

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	37243	mram or magnetoresistive or (magneto adj resistive) or (magnetic near2 memor\$3)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:45
L2	1645	u14-a04	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:45
L3	679	s01-e01b1	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:45
L4	38176	1 or 2 or 3	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:46
L5	133	cofeb or fecob	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:46
L6	1276	co near2 fe near2 b	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:46
L7	6956	(iron or fe or ferro or ferrous or ferric) near5 (cobalt or co) near5 (boron or b)	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:47
L8	7025	5 or 6 or 7	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:47
L9	292	4 and 8	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:47
L10	48	9 and amorph\$5	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 13:47
L11	244	9 not 10	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 14:00
L12	77	11 and (ratio or percent\$4 or "%")	EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/07/13 14:00

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	29	co90fe10	EPO; JPO; DERWENT ; IBM_TDB	OR	OFF	2010/07/13 15:38
L2	513	b20	EPO; JPO; DERWENT ; IBM_TDB	OR	OFF	2010/07/13 15:38
L3	0	1 and 2	EPO; JPO; DERWENT ; IBM_TDB	OR	OFF	2010/07/13 15:38
L4	2	co90 adj fe10	EPO; JPO; DERWENT ; IBM_TDB	OR	OFF	2010/07/13 15:38
L5	2	1 and boron	EPO; JPO; DERWENT ; IBM_TDB	OR	OFF	2010/07/13 15:41